The Importance of Chinese Agriculture in the World Economy

Gerald A. Bange
Chairperson, World Agricultural Outlook Board, USDA

Abstract: Since the mid-1990's, the United States and the People's Republic of China, two of the world's foremost agricultural powers, have engaged in information exchanges. Both countries recognize that sharing accurate and timely commodity information is critical to economic forecasting and planning. The purpose of this paper is to trace the evolution of USDA's long-term "baseline" projections for China since the mid-1990's.

Keywords: Information, Forecasts, Projections, Economic Analysis

1. Introduction

Most Americans have only a rudimentary understanding of China. Twenty-five years ago, China, with its huge population, was viewed by many in the West as a country with nearly unlimited market potential. In recent years, Western views about China as a potential market have been tempered, more realistically, I think, with the recognition that China is a great agricultural power. While China remains a great potential market, it is equally as true that China has the potential to be a great competitor.

In 1993, USDA, for the first time, published long-term supply and demand projections for major U.S. agricultural commodities. These projections were made with limited knowledge about China's agriculture. I am pleased to say that we now have a far better understanding of China's agricultural sector than only a decade ago. This is due in large part to much improved information, which is the theme of this paper. In this regard, China's National Bureau of Statistics and Ministry of Agriculture are to be commended for the excellent work they are doing.

The purpose of this paper is to discuss how USDA's views and projections with respect to China have evolved with improved information.

2. Data Collection and Dissemination

The State Statistical Bureau (SSB), now the National Bureau of Statistics (NBS), was established in 1952 to publicize the achievements of government policies. During the Great Leap Forward, the objectivity of SSB reports became a concern to many analysts. The SSB was effectively disbanded during the Cultural Revolution, but was reestablished in 1977. However, it took several years of hard work before the SSB regained its credibility.

In 1978, USDA published estimates of Chinese grain and oilseed production and trade but used no official data from the People's Republic of China. Data of Chinese origin were not available. Instead of reporting a numerical estimate, China reported the grain crop for 1977 to be a "fairly good grain harvest." This was interpreted by USDA to mean a smaller crop than the previous year. Historical production data contained in "official Chinese media" were referred to

as "claims," subject to "periodic revision." USDA reported trade data from partner country reports and from trade journals.

By 1982, it was clear that the regular publication of economic statistics had been resumed in two forms, yearbooks and annual SSB "communiqués" on plan fulfillment. In addition, Chinese press reports began to discuss agriculture in greater detail. The communiqués in 1981 and 1982 were incomplete and yearbooks were one year behind for crop production data. Thus, official production estimates for the prior year were not available in time for current-year planting forecasts. By 1984, all Chinese data, including trade data, reported by USDA was from official Chinese sources. The primary sources were the *China Statistical Yearbook* and annual SSB communiqués. However, the information was still not available in a timely manner.

Despite the increasing reliability of production statistics, there remained serious discrepancies regarding area cultivated. Beginning in the mid-1980's, the SSB launched a survey to correct these deficiencies. The preliminary results confirmed that the amount of cultivated land was much larger than previously reported. China scholars have recognized this as a long-standing problem in China, stemming from tax evasion in the 14th century to a safeguard, or margin of comfort, for fulfilling production quotas in the centrally planned era. Despite these efforts, revised land area data did not officially appear until after China's historic and first complete agricultural census in1997. So far, only a single "total area" number has been published. To date, the NBS has not released revised area data by commodity.

Other data revelations and the increase in cultivated area presented USDA with several difficult analytical problems. First, in 1993 China reported that grain stocks in 1990 were 491 million tons, compared with USDA's estimate of 82 million. Second, assuming production was accurately reported, then USDA estimates of Chinese crop yields may be too high. This is a significant issue because it suggests that China has significant potential for yield growth which, if realized, will reduce import needs.

3. The Decline of Communal Agriculture

Doubts about the efficiency of communal agriculture were becoming evident as China implemented the 1976-85 ten-year plan. The plan noted the need to "delineate managerial responsibility clearly and to have a check up system on performance." Although specifying that the commune system remained supreme, the plan allowed commune members to farm small plots for personal needs, and to participate in "legitimate" trade at village fairs.

In the early 1980's, debate on the future of communes intensified. The commune was to have been the means by which all farm workers would eventually be employed on massive "state-owned" farms. However, the huge relative size of the rural labor force made this unworkable. The commune debate projected three principal views: Hard-liners argued that the system should be retained but cleansed of "capitalist" devices. A second group recommended leaving the system in place, but adjusting individual incentives. The third, and prevailing group, argued that communes should be eliminated, but households must agree to a system of state production contracts. The fact that rural per-capita income had increased dramatically between 1978 and 1982 (almost doubling by some estimates) after having stagnated for the previous 20 years added to the credibility of anti-commune sentiment.

As the plan evolved, there was an increasing reliance on specialization. Changes in the agricultural sector were much more rapid than had been expected. Private plot area reportedly expanded from 7 percent of cultivated area to 15 percent, rural free markets were burgeoning, and prices were rising. This led to policy adjustments including price controls and a slowdown in the permitted expansion of "economic crops."

Between 1982 and 1985, communes largely disappeared. Under the "Household Responsibility System," households became the primary production unit, motivated by profit. And, by 1985, the success of the contract system resulted in huge surpluses, which USDA assumed would result in significant exports for the next several years. However, the practice of supporting grain production by offering high procurement prices resulted in severe strains on the government budget and a buildup of stocks in surplus areas.

4. Self-sufficiency: A Recurring Theme

While communes have disappeared, China's emphasis on "self-sufficiency" in agriculture has not. Economic principles in the 1976-85 ten-year plan included "building our country independently, with the initiative in our own hands and through self-reliance, hard struggle, diligence, and thrift."

By 1981, the introduction of the Household Responsibility System between 1978-80 had been extremely successful, as grains area shifted to increasingly lucrative "cash crops." This shift resulted in massive grain imports in 1980, with China becoming the largest market for U.S. wheat during that year.

By 1985, foreign and domestic prices were indirectly linked, exposing the grains economy to foreign "surprises." Chinese officials became concerned that increased returns to farmers had been achieved at the expense of grain security. However, it was important for China to maintain agricultural trade surpluses, to earn foreign exchange. This occurred before manufactured goods became a key China export.

By the early 1990's, domestic grain markets began to emerge. Local infrastructure, especially road networks, improved significantly, giving more of the rural population access to grain markets. Thus, farmers could buy the grain they needed but no longer had to produce. The question became whether this trend would reduce China's overall grain self-sufficiency.

In 1994, inflationary pressures in the form of rising food prices triggered a shutdown in corn exports. Large grain imports in 1995 renewed the debate on grain self-sufficiency. Hardliners argued that China should provide for itself. Others argued that self-sufficiency would be too costly given China's developing but inadequate infrastructure and limited arable land. The third, and dominant, group held that labor-intensive crops could be encouraged and limited grain imports permitted. The end result was the "Grain Bag Policy," which made provincial governors responsible for "adequate" supplies of grain and edible oils. This included stabilizing the area sown to grains, primarily wheat, corn, and rice. Those provincial governors who could demonstrate gains by importing could do so through the Central Government. The question remained, however, whether or not world grain markets could be "trusted" in a crisis.

To a degree, the self-sufficiency debate quieted with a record grain crop of 490 million tons in 1996, spurred by high prices in 1994 and 1995. Supporters of the Grain Bag Policy argued that the policy was a success.

5. Water: A Potentially Constraining Factor

The rapid pace of economic development in China has strained its resource base, both human and physical. Nowhere is this more apparent in natural resources than the increasing demands for water for a variety of uses. Rapid industrialization not only increases the demand for water as an input, but often makes it unusable as an output, through pollution. Further, a wealthier population demands more water for a variety of uses. Agriculture remains the heaviest user of water, with about half of China's arable land in the dry North.

China faces a major difficulty in delivering water to the North. The current emphasis on making water available for industrial and urban uses seems at odds with the desire to be self-sufficient in grains production, which implies increased irrigation.

Adjustments in water use are taking place, as policymakers and citizens recognize that high prices for water are a signal to economize on its use. More efficient irrigation systems are one response, along with proposals to treat water as a traded commodity. The Ministry of Agriculture has also initiated a "Dryland Farming Program" that includes creating seed varieties with high yields and low water use, developing water-conserving field practices, and constructing terraces to reduce runoff.

Despite these adjustments, it is clear that water conservation will affect the agricultural economy of China. Less double-cropping is likely, as well as production of commodities that provide a higher return per unit of water, such as fruits and vegetables, or dryland crops such as sorghum, millet, and cotton. In the long run, water availability likely will be key to China's success in realizing its self-sufficiency goal, competing in a variety of different agricultural markets, or becoming a consistent major importer.

6. USDA Projections

The stop-and-go nature of agricultural policy reforms in China, infrastructure and resource issues, and the poor quality and paucity of historical data present significant analytical problems. Despite these difficulties, USDA has endeavored to forecast China's agricultural production and trade.

USDA's first long-term agricultural projections for China were published by the Economic Research Service (ERS) in 1992. These projections looked through 2000. For China, USDA assumed per capita income growth of 5 percent and a continuation of price liberalization then in effect. The projections concluded that increasing income would raise total meat consumption by 45 percent, compared to the 1988-91 average. Higher income would also result in lower rice consumption. Trade effects would be an increase in rice exports and large increases in feed grain and soybean imports.

Will China Disrupt World Grain Markets?

In October 1996, USDA published *The Future of China's Grain Market*, the Department's first comprehensive long-term projections following implementation of the "Grain Bag" system. USDA's assessment was widely anticipated in light of a report entitled, *Who Will*

Feed China? Wake Up Call for a Small Planet, published by Worldwatch Institute in 1995. This report implied that China's grain import needs would overwhelm world markets before 2030. This was based on the assertion that environmental degradation, limits on yield increases, and water shortages would dramatically reduce China's grain production. Combined with steady rises in meat consumption, the conclusion was that China would buy all potential exportable supplies of all grains worldwide by 2030.

USDA's October 1996 report provided baseline estimates for China's grain imports through 2005. The projections were limited by uncertainty concerning grain area and yield. However, USDA assumed modest improvements in yield, and that grain production would increase despite contractions in arable land due to urbanization and other factors. In addition, USDA also assumed that policies in effect would allow for increased reliance on market forces, although the government would continue to control feed grain and meat imports. Water shortages in China's north were assumed to be serious, but manageable. Income growth would increase demand for meat, raising feed requirements.

These assumptions led USDA to conclude that China would gradually become a larger net grain importer through 2005. Partial self-sufficiency was assumed to permit imported grains to fill as much as 10 percent of domestic requirements, and imported meats as much as 5 percent. Significant constraints included infrastructure, primarily ports and rail transportation.

Per-capita consumption of wheat was forecast to increase from the estimated average of 89.3 kilograms average for 1994-96 to 92.6 kilograms in 2005. Corn per capita consumption would jump from 87.1 kilos to 109.1 during the same period, while rice would decline from 105.7 to 98.4 kilos per person.

Imports of wheat were forecast to rise from an average 11.0 million tons during 1994-96 to 18.2 million in 2005. Corn imports were deemed likely to rise to 6.5 million tons in 2000 and 11.8 million in 2005, from an average of 2.9 million in 1994-96.

The 1997 Baseline Projections

The 1996 U.S. Farm Bill led to a radical change in U.S. agricultural policy which allowed farmers to plant whatever crops would earn the highest return.

The robust economies of East Asia, including China, looked to be ready markets for U.S. farm output. This optimism was evident in USDA's long-term baseline projections report for 1997. China figured prominently in these projections.

China's economic growth was forecast to remain the strongest in Asia. Consumer price inflation was expected to remain in double digits throughout the period while the real value of the yuan was expected to appreciate. Agricultural policy was assumed to continue moving gradually and incrementally toward greater liberalization, increasing the role of market forces in China's production, consumption, prices, and trade. Central government planning was assumed to decline for most crops, with a growing share of farm gate and retail purchases occurring at market prices rather than at government-set prices. Agricultural trade was assumed to become more liberalized as tariffs were gradually reduced and non-state trade companies became more important. While central government control over trade in key commodities was believed likely continue, the share of trade handled by private or joint private-public trade companies was assumed to grow. Because USDA's baseline projections reflect policies in effect at the time the projections are

made, China was not assumed to become a member of the World Trade Organization (WTO) during the projection period.

Production of all major crops (except rice) was projected to increase as rising domestic prices raised yields through increased use of improved varieties and fertilizer and better farm management practices. Reduced state investment in agriculture during the 1980's was expected to produce a slowdown in the rate of yield growth toward the end of the baseline. Total land in agriculture was forecast to continue its then-current decline under pressure from nonagricultural uses, but the rate of decline was forecast to slow.

Income growth that drives demand for meats and edible oils was the key factor in projections for China's future agricultural trade patterns. Relatively small changes in assumptions affecting income growth, meat production trends, or feed demand resulted in relatively large changes in trade projections for a country with 1.2 billion people.

China's imports of wheat were projected to more than double during 1996-2005, reaching 15 million tons by 2005, mostly in response to population increases and limited prospects for area and yield growth. It was expected that China's future wheat imports would be based more on economic factors than self-sufficiency goals.

China was expected to substantially increase its imports of corn through 2005, with total coarse grain imports rising to 11.4 million tons by 2005. Again, the reason cited is the rapid income growth, fueling increased demand for imported feedstuffs.

The 1997 baseline report contained the first long-term USDA projections concerning China's supply and use for soybeans and products. China was already a net importer of soybeans and meal and continued demand growth was expected. Poultry production was projected to continue rising due to strong domestic demand and increasing exports to other Asian countries, especially Japan. It was expected that China would maintain import tariffs that favored imports of soybeans over soybean meal. Moreover, increasing shortages of vegetable oils and protein meals were deemed likely to prompt further investment in new soybean-processing facilities in China's central and southern coastal cities.

The pace of future growth in China's soybean and meal imports was considered highly uncertain and dependent on assumptions regarding economic growth, the rate of growth of livestock production, the evolution of feed rations, and the government's policy response to rising imports of soybeans and meal. But the pace was expected to be rapid. Soybean imports were forecast to nearly triple and soybean meal imports would double from 1997 to 2005.

China was expected to raise both production and consumption of cotton, but, in the long run, consumption was expected to grow more rapidly. China's imports had been rising in years prior to the projections being made and China was expected to remain a growing net importer. Intransigent bollworm infestations in the North China Plain hampered the crop in one of China's pre-eminent growing regions. Rapid economic growth had increasingly turned land over to nonagricultural pursuits and deprived agriculture of investment funds for inputs and improvements. Soaring grain prices and an increasingly affluent population's demand for a greater variety of foods also increased the area of other crops at the expense of cotton.

China was projected to be one of the world's largest cotton importers over much of the projection period, and USDA duly noted that differing assumptions on supply and use developments could significantly influence world trade and U.S. exports. Specific areas of uncertainty included the extent to which insect control problems that had hampered production

could be solved and the extent to which cotton consumption, which had stagnated since the late 1980's until 1997, would respond to sustained economic growth.

The 1998 Baseline Projections

USDA's 1998 baseline projections presented a somewhat different picture of the future, darkened by the devastating East Asia financial crisis. However, the devaluations and capital flight that spread from Thailand to Malaysia to Indonesia and finally to South Korea was deemed unlikely to have much impact on China. The gradual changes in policies assumed for the projection period (1998-2007) belie the reality that policies are discontinuous, with discontinuities difficult to predict. Thus, the yuan was assumed to depreciate gradually, despite the perceived likelihood that a devaluation would be sudden, one-time, and large.

There were, in fact, very few differences in the assumptions for China from the 1997 baseline to the 1998 version. China's economy was assumed to continue to grow at a rapid but gradually declining rate over the projection period.

Agricultural policy was assumed to continue to be gradually liberalized, increasing the role of market forces in all aspects of China's agricultural sector. Government planning was assumed to diminish gradually for most crops, with a rising (but less than 100 percent) share of farm gate, wholesale, and retail transactions occurring at market rather than government-set prices. Intermittent state intervention to stabilize markets was likely to occur, but with declining frequency.

Production of most major crops was expected to increase as rising domestic prices boost yields by stimulating more use of improved varieties, fertilizer, and better management. Reduced agricultural investment during the 1980s was projected to induce a modest slowdown in the rate of yield growth over the projection period. Total cultivated land was forecast to continue to decline under pressure from non-agricultural uses, but the rate of decline was assumed to slow in response to more effective government policies.

Assumptions regarding future meat production and the expansion of commercial feeding remained the key to the China projections. These projections incorporated the expectation that capital and infrastructure constraints would markedly slow potential growth in China's meat production. However, USDA's projections did incorporate relatively fast growth in commercial feeding of corn and soybean meal, consistent with trends at that time. As a result, commercial feeding and imports of corn, soybeans, and soybean meal were projected to show strong growth.

China's wheat imports were projected to rebound from a 1997 low of 2 million tons, as yields were expected to return to trend and limited area reduced production. Imports were then expected to increase gradually as demand outstripped production, reaching 11 million tons by 2007.

Strong economic growth was again expected to raise meat demand, to be met by expanding domestic meat production. As livestock production modernized and concentrated, the use of concentrate feed rations would be expected to increase, further boosting feed demand. Although corn yields were projected to grow, land availability was assumed to be constrained, and production was not expected to keep pace with demand growth. Increased corn imports would therefore, it was argued, be needed for growing meat production and to contain domestic meat prices. While exporting significant quantities of corn from northern areas to nearby

countries, China was expected to import ever larger amounts of corn into the south. Early in the projection period, China was expected to be a small net importer of less than 1 million tons, but by 2007 net corn imports were projected to reach more than 13 million tons.

China's imports of soybeans were seen rising nearly 80 percent from 1997 to 2007, to 5.4 million metric tons. Also, soybean meal imports would increase sharply, partly in response to increased exports of poultry to Japan and elsewhere in Southeast Asia. A rapidly expanding economy in China was also expected to drive demand for soybean oil imports sharply higher. The rise in soybean oil imports was expected despite much higher crushing of rapidly growing soybean imports. China's domestic production of soybeans was forecast to show limited gains. China's soybean oil imports were also forecast to increase.

China's cotton consumption was expected to grow more rapidly than production during 1998-2007. China's imports had been rising in the prior few years and China was expected to remain the world's largest single-country importer through 2007. Intransigent bollworm infestations in the North China Plain were again cited and were expected to hamper the crop in what once was one of China's preeminent growing regions. Also, rapid economic growth had increasingly turned land over to nonagricultural pursuits and deprived agriculture of investment funds for inputs and improvements. Soaring grain prices and an increasingly affluent population's apparent demand for a greater variety of foods had increased the area of other crops at the expense of cotton.

Reality Strikes in the 1999 Baseline Projections

The depth of the financial crisis of 1997/98 in Southeast Asia forced USDA to soften its optimism. Wary investors were expected to reduce investment flows to all developing regions and countries, slowing overall growth in the developing world, including China. While China's growth remained consistently the strongest in Asia, it was expected to level off from double digits in the early 1990s to a more sustainable annual pace of 7 to 8 percent in the next decade.

Agricultural policy intervention in China was now expected to focus more on maintaining self-sufficiency in the grain sectors. Administrative and financial support was expected to give priority to boosting output and limiting imports of wheat, rice, and, to a lesser extent, corn. The new focus on the grain sector was expected to lead to reduced support and greater potential reliance on imports for commodities other than grains. The result was a sharply different import scenario than in previous USDA long-term projections, especially for wheat (Attachment 1).

China's agricultural trade system was assumed to continue to be slowly reformed. Although central government quantitative controls on trade in key commodities, including wheat, rice, corn, and cotton, were expected to be maintained, the share of trade handled by private and joint private-public trade companies was expected to expand.

Production of most major crops was expected to continue to increase as rising domestic prices boost yields by stimulating more use of improved varieties, fertilizer, and better management. The government's multi-year commitment to investment in agricultural research and technology was assumed to be sustained through the projection period. Total cultivated area was expected to decline under pressure from non-agricultural uses.

Assumptions regarding agricultural policy, the data and parameters used for projecting livestock production and feed use, and future movements in China's real exchange rate were

important keys to the 1999 China projections, and were recognized as being subject to a high degree of uncertainty. In October of 1998, the SSB released revised 1996 livestock sector data which showed animal inventories and meat production levels to be 20 to 30 percent lower than previously assumed. Since NBS did not revise the historical data series, it left unanswered the question of what adjustments might be needed in long-term meat production growth rates. However, USDA's projections did incorporate a preliminary assessment of the impacts of the data revisions on future growth in the supply, demand, and trade of meats and feeds. The projections released in 1999 were based on estimates of reasonable long-term growth in meat supply and use which were extrapolated from the revised data by ERS.

The recent data revisions prompted a reexamination of projected supply and demand growth for all meats. In general, the changes in long-term meat production growth meant smaller animal inventories and reduced levels of feed demand. The lower estimates of future meat production, combined with the policy initiatives that were expected to stimulate domestic grain output, contributed to sharply lower long term projections of net coarse grain imports compared with earlier USDA baselines (Attachment 1).

China's cotton import prospects were reduced sharply in the 1999 baseline in anticipation of policy changes which lowered the domestic price of cotton and made imports less attractive (Attachment 1). Prior to this liberalization, artificially high government procurement prices resulted in an accumulation of burdensome stocks.

USDA's Current Long-term Projections

USDA's current long-term projections, released in February 2000, incorporated a recovery from the East Asian financial crisis. Despite this recovery, a sharp rebound in U.S. agricultural exports was not projected. Again, one of the major reasons was China.

China's economic growth has been the strongest in Asia but is expected to slow to a more sustainable but still robust pace of around 7.4 percent over the next decade. With population growth of less than 1 percent per year, per capita GDP gains will remain near 7 percent annually. These gains will penetrate China's poorer inner provinces and likely improve productivity in the agricultural sector as more capital-intensive farming and food processing are undertaken.

China's agricultural policy has been in a state of flux as government priorities have shifted and reform initiatives have been adjusted. After transferring responsibility for ensuring adequate grain supplies down to the provinces in the mid-1990s, a "Grain Reform" policy was initiated in 1998, reversing several years of liberalization by severely restricting private grain marketing. These two policy initiatives, combined with excellent weather, large crops, and a slowdown in consumer demand, resulted in rapid growth in government expenditures and burgeoning agricultural commodity stocks. As a result, agricultural imports have dropped sharply and exports have risen.

In 1999, the government responded to the problems of large surpluses in agriculture by announcing strict new quality standards on government grain purchases, the gradual elimination of purchases of the lowest quality grains, and abolition of the government-set price for cotton and mandatory cotton sales to the government. Despite the negative impacts these changes may have

on grain and cotton output in the near term, stocks are more than sufficient to forestall the need to significantly increase grain or cotton imports.

In late 1999, the NBS released revised estimates for total cropped area in the country. The NBS estimates place total cropped area in 1996 at 130 million hectares, 37 percent higher than the previous estimate of about 95 million hectares. Crop production estimates for China are generally believed to be accurate, so the larger area estimate implies that official (and USDA) estimates of crop yields are significantly overstated. Since the NBS has not released area estimates by crop, or for historical years, it is not yet possible for USDA to revise area and yield series for individual crops. However, because the new larger area estimate was first made available in 1993, the impacts have been accounted for in USDA projections by assuming that China's unmet yield potential is greater than implied by the official data, raising future yield growth rates accordingly.

With respect to trade policy, the government recently resumed value-added taxes on oil meal imports and clamped down on edible oil import smuggling. Over the long-term, this policy shift is expected to result in sharply lower levels of oil meal imports, modestly lower edible oil imports, and much higher levels of soybean (Attachment 1) and rapeseed imports.

The net result of the recent agricultural policy changes, combined with slower growth in domestic demand and rising yields, is a reduction in China's projected imports of key agricultural commodities. Wheat, corn, cotton, soybean meal, and soybean oil imports are all lower than previous baseline projections. The projections also show comparatively higher exports of corn and cotton, particularly in the near term.

Although grains and cotton area are expected to decline in the short term, over the longer term area and yield gains and production growth are expected to be modest but steady. More government investment in agricultural research and development and in infrastructure such as irrigation and flood control will be a driving force in reducing costs and increasing returns to farmers. In addition, production of most major crops is expected to rise as yields are boosted by more use of improved varieties, fertilizer, pesticide, and better management.

The long-term trend, however, is for China's agricultural trade system to gradually liberalize as the government attempts to reduce swelling financial outlays supporting the inefficient government-owned agricultural marketing and distribution system. The share of trade handled by private, quasi-private, or joint public-private trade companies is expected to expand gradually. However, self-sufficiency will remain a high priority and the central government likely will restrict imports of selected commodities.

7. Changing Policies and Changing Forecasts

Changing agricultural policies, both within China and the United States, have been the rule, and not the exception, over the past 20 years. These changes have led to dramatic changes in USDA's projections of China's imports of basic commodities (Attachment 1).

The baselines of 1997 and 1998 were optimistic from the point of view of the United States, the largest exporter of both wheat and corn. By the year 2005, according to USDA's 1997 forecast, China would import almost 15 million tons of wheat and be a net importer 9 million tons of corn. In the meantime, the impact of both the "Grain Bag" policy and higher prices became more and more apparent. China's domestic production boomed. Thus, in February

2000, USDA expected China to import scarcely 2 million tons of wheat and to be a net *exporter* of 3.5 million tons of corn in 2005.

Analytical results for soybeans, however, have evolved quite differently. Baseline projections for china's soybean imports have steadily moved higher. Again, this reflects a policy change in China. Higher incomes have raised the demand for vegetable oil for cooking and soybean meal for poultry feeding. Rather than import soybean oil and meal, however, China's leadership has encouraged the growth of a domestic crushing industry. As this industry matures, the demand for soybeans is expected to exceed domestic production.

For cotton, the 1997 baseline assumed that China would continue as a significant net importer due to government policies which, at that time, supported farm procurement prices reversed beginning with the 1999 crop, when China embarked on a program to allow procurement prices to be set by the market and to dispose of surplus stocks. Although production is projected lower under the new policies, imports are also lower due to the government's apparent willingness to subsidize the release of stocks from government-held inventories. Thus, the 2000 baseline shows net exports diminishing over the next few years, with a resumption of net imports in 2002/03.

8. In Closing...

The purpose of this discussion has been to highlight the value of accurate and timely information to economic analysis. Clearly, USDA's assessment of agricultural prospects for China have changed dramatically as the flow of economic information from China has increased. As China progresses to a market economy, and given China's importance to global agriculture, all nations, including China, will benefit by sharing information.

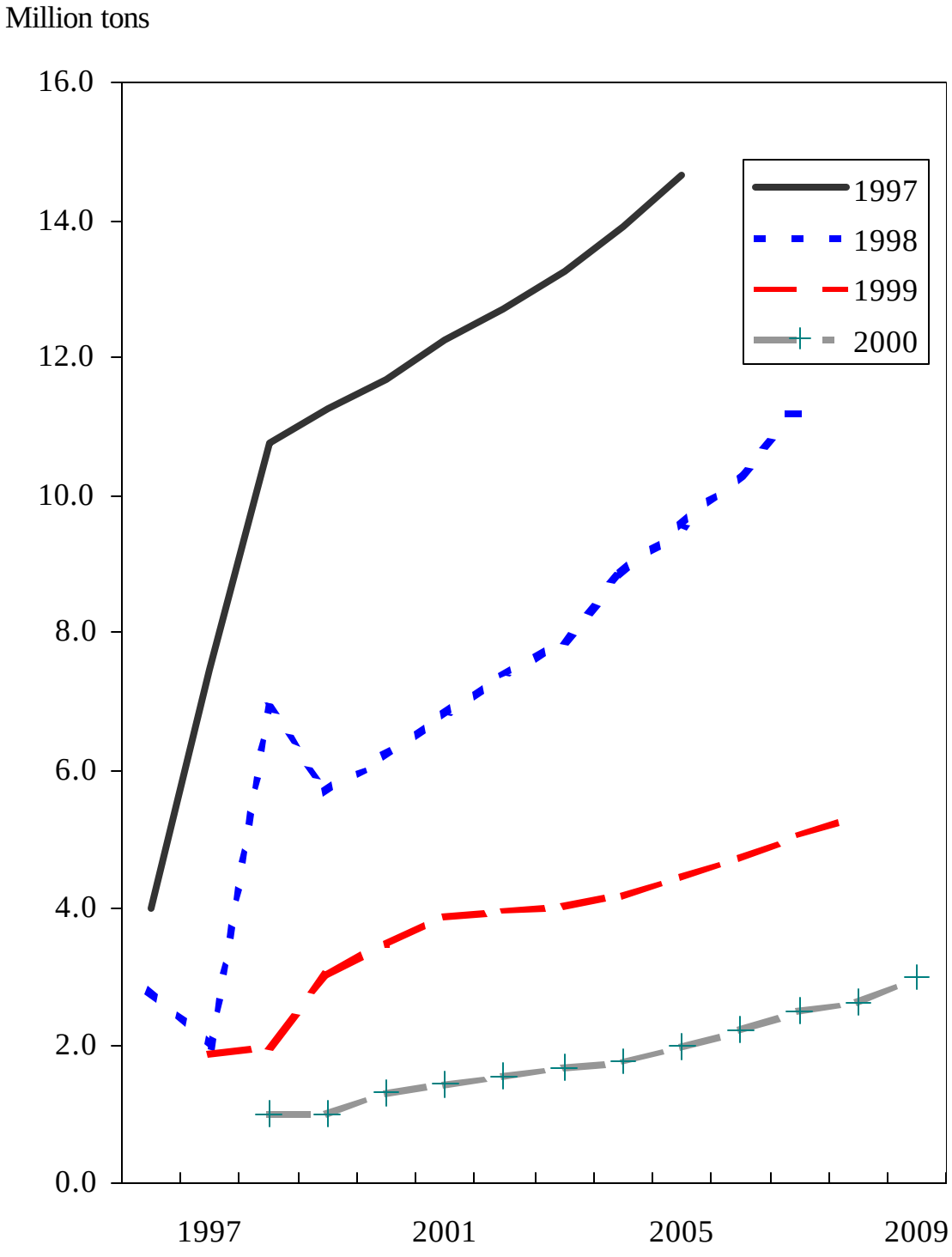
But, in a dynamic world, economic analysis is a never-ending effort. Now, the analytical landscape has changed again. The potential impact of China's accession to the WTO presents USDA with yet another difficult analytical challenge. While USDA has done much work on this already, the projections I have discussed today do not assume China's entry into the WTO. USDA has, of course, analyzed the probable impact of China's accession to the WTO. In March of this year, USDA's Economic Research Service published an article entitled, "China's WTO Accession Would Boost U.S. Ag Exports and Farm Income" in its monthly *U.S. Agricultural Outlook* series.

As Chairperson of USDA's World Agricultural Outlook Board, I wish to thank FAO for the invitation to participate in this conference. I am especially thankful for the opportunity to return to Beijing, once again, to share USDA's views on the agricultural outlook with our Chinese counterparts.

Attachment 1

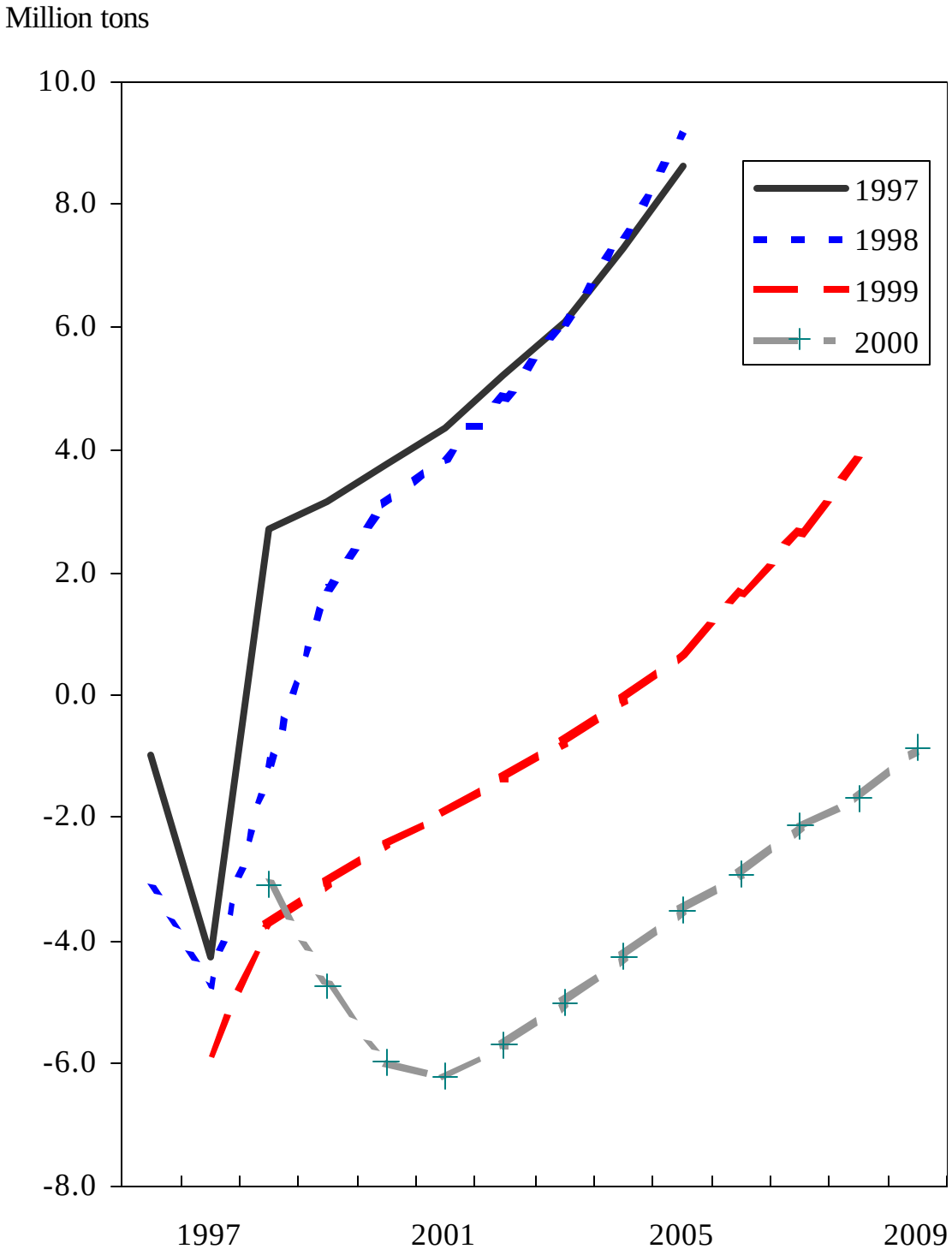
China Wheat Import Projections

1997 to 2000 USDA Baselines



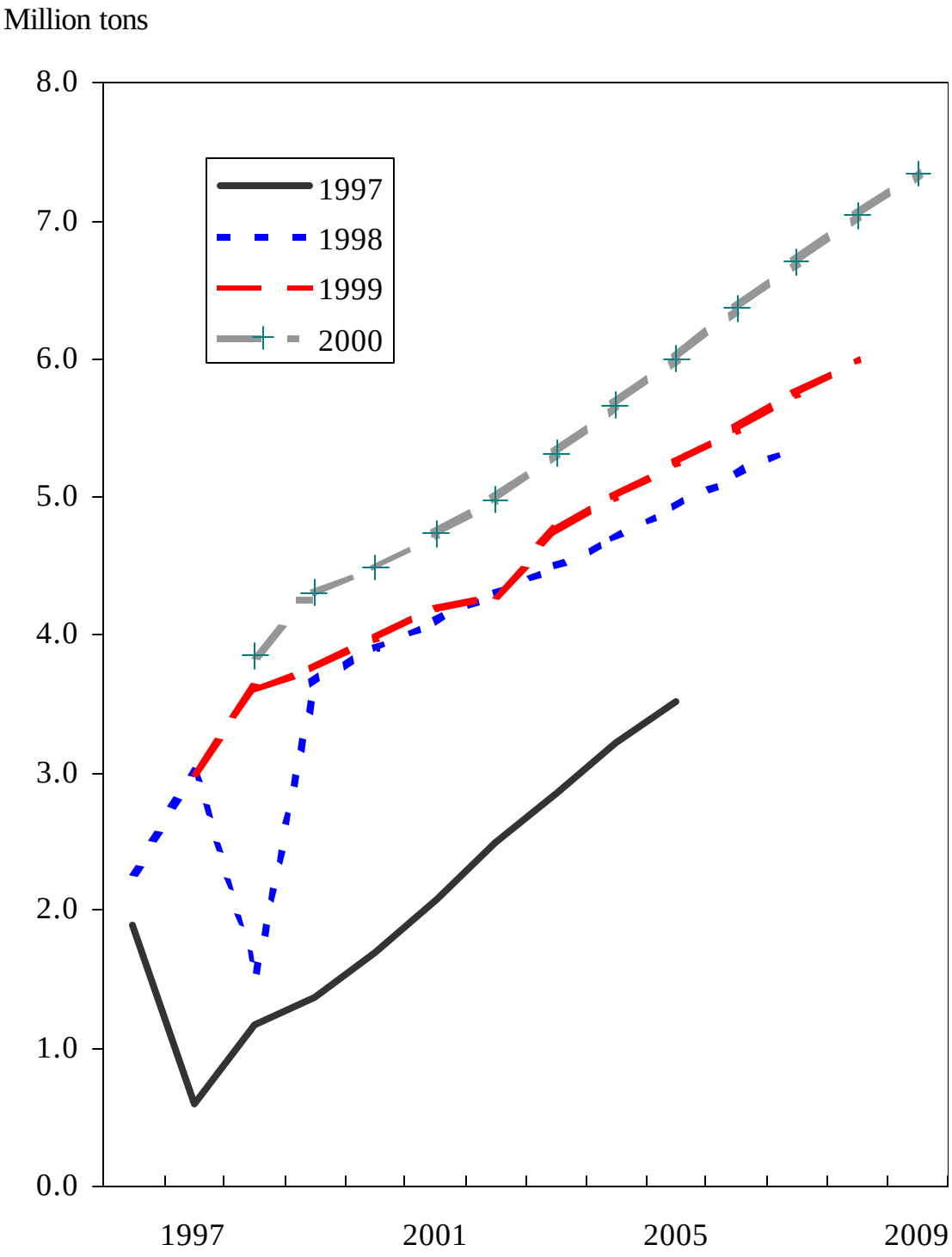
China Corn Net Import Projections

1997 to 2000 USDA Baselines



China Soybean Import Projections

1997 to 2000 USDA Baselines



China Cotton Net Import Projections

1997 to 2000 USDA Baselines